



Dirk Eddelbuettel

# Seamless R and C++ Integration with Rcpp

Series: Use R!

- Illustrates a range of statistical computations in R using the Rcpp package
- Provides a general introduction to extending R with C++ code
- Features an appendix for R users new to the C++ programming language
- Rcpp packages are presented in the context of useful application case studies

Rcpp is the glue that binds the power and versatility of R with the speed and efficiency of C++. With Rcpp, the transfer of data between R and C++ is nearly seamless, and high-performance statistical computing is finally accessible to most R users. Rcpp should be part of every statistician's toolbox. -- Michael Braun, MIT Sloan School of Management "Seamless R and C++ integration with Rcpp" is simply a wonderful book. For anyone who uses C/C++ and R, it is an indispensable resource. The writing is outstanding. A huge bonus is the section on applications. This section covers the matrix packages Armadillo and Eigen and the GNU Scientific Library as well as RInside which enables you to use R inside C++. These applications are what most of us need to know to really do scientific programming with R and C++. I love this book. -- Robert McCulloch, University of Chicago Booth School of Business Rcpp is now considered an essential package for anybody doing serious computational research using R. Dirk's book is an excellent companion and takes the reader from a gentle introduction to more advanced applications via numerous examples and efficiency enhancing gems. The book is packed with all you might have ever wanted to know about Rcpp, its cousins (RcppArmadillo, RcppEigen .etc.), modules, package development and sugar. Overall, this book is a must-have on your shelf. -- Sanjog Misra, UCLA Anderson School of Management The Rcpp package represents a major leap forward for scientific computations with R. With very few lines of C++ code, one has R's data structures readily at hand for further computations in C++. Hence, high-level numerical programming can be made in C++ almost as easily as in R, but often with a substantial speed gain. Dirk is a crucial person in these developments, and his book takes the reader from the first fragile steps on to using the full Rcpp machinery.

2013, XXVIII, 220 p. 7 illus., 4 illus. in color.

## Printed book

Softcover

59,99 € | £54.99 | \$74.99

<sup>[1]</sup>64,19 € (D) | 65,99 € (A) | CHF

71,00

## eBook

51,16 € | £43.99 | \$59.99

<sup>[2]</sup>51,16 € (D) | 51,16 € (A) | CHF

56,50

Available from your library or  
[springer.com/shop](http://springer.com/shop)

## MyCopy <sup>[3]</sup>

Printed eBook for just

€ | \$ 24.99

[springer.com/mycopy](http://springer.com/mycopy)

Order online at [springer.com](http://springer.com) / or for the Americas call (toll free) 1-800-SPRINGER / or email us at: [customerservice@springernature.com](mailto:customerservice@springernature.com). / For outside the Americas call +49 (0) 6221-345-4301 / or email us at: [customerservice@springernature.com](mailto:customerservice@springernature.com).

The first € price and the £ and \$ price are net prices, subject to local VAT. Prices indicated with [1] include VAT for books; the €(D) includes 7% for Germany, the €(A) includes 10% for Austria. Prices indicated with [2] include VAT for electronic products; 19% for Germany, 20% for Austria. All prices exclusive of carriage charges. Prices and other details are subject to change without notice. All errors and omissions excepted. [3] No discount for MyCopy.

